

REMARKS/ARGUMENTS

Claims 2 and 4-6 are currently pending. No claims are currently.

Regarding the rejection of Applicants' claims 5 and 6 under U.S.C. §103(a) and U.S.C. §102, respectively, over Rainin et al. (US 6,967,004), Applicants respectfully point out that the Examiner has failed to make the prima facie case under 103 and 102 respectively by failing to even state that Rainin discloses or suggests a third sealing zone, a third pipette tip stop, or the mounting shaft configured... [for] a third diameter tip as called for by Applicants' claims 5 and 6. Thus, even if all of the examiners other 102/103 rejections were sustained, which they should not be, clearly claims 5 and 6 are patentable over Rainin as nowhere does Rainin disclose or suggest these features and nowhere does the examiner mention these features in the office action.

Applicant also respectfully requests that the Finality of the office action dated 03/31/2009 be withdraw as the rejection of claims 5 and 6 is improper and not only was the citation of Rainin in rejecting claims 5 and 6 not necessitated by Applicant, but the claims are clearly allowable over Rainin.

Regarding the rejection of Claims 2 and 4 under 35 USC 112, second paragraph, the Examiner states that the "claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was file, had possession of the claimed invention." Regrettably, the Examiner has failed to specifically point out what portions of the claim element, structure, or relationships of structure are alleged to not be disclosed among the added claim element, thus Applicants' will point out where each and

every portion of the claim element, structure, and relationships of the structure, as called for in claims 2 and 4, is disclosed in the specification:

“a pipette tip ejector”

Pipette ejectors are generally introduced as a “plungers” in [0002] and the pipette tip ejector 3 is more specifically disclosed and described in [0009] and shown as reference numeral 3 in Fig. 1-3.

“ having a striker portion for striking the upper edge of the pipette tip”

[0017] and [0018] each disclose that “the upper width of the pipette tip is wide enough to be engaged by ejector 3 when it is depressed.” [0016] discloses “the upper edge of the pipette tip [20 or 21]...is struck by ejector 3 when depressed, to thereby eject the pipette top from the pipette top mounting shaft”, thus the term “striker portion” is adapted from the disclosure that the “tip...is struck by ejector 3...” (emphasis added) In viewing Figs. 2 and 3, it is clear that the striker portion of the ejector is the end closest to the pipette tip 20 or 21 by which the tip 20 or 21 is struck when the ejector “is depressed”.

“ the ejector axially movable”

[0009] discloses that “Pipette top ejector 3...is axially movable downward with respect to the pipette top mounting shaft”.

“ between a proximal retracted position”

[0009] discloses that “Pipette tip ejector 3...is axially movable...from the position shown”, which refers to Figs. 2 and 3. The “position shown” is described in the claims as “a proximal retracted position” in simply described in opposite terms to the other “distal ejecting position”. A person of ordinary skill in the art appreciating that the function of the ejector is to strike and eject the pipette tip attached to the distal end of the pipette tip mounting shaft, will clearly understand this position from the drawings showing the ejector 3 not in contact with the pipette tip 20/21, and thus in a *retracted position* allow and the tip to remain in position on the distal end of the top mounting shaft. “Retracted” is a common term used in ALL of the mechanical arts for the proximate or rest position of a member that moves axially.

“ and a distal ejecting position”

[0016] discloses “the upper edge of the pipette top [20 or 21]...is struck by ejector 3 when depressed, to thereby *eject* the pipette top from the pipette top mounting shaft” (emphasis added) a position which is also disclosed in [0009] as “pipette top ejector...axially movable downward...past first annular pipette top stop 5.”

“the striker portion positioned axially proximal of the first and second annular pipette tip stops in the retracted position”

[0009] refers to what is shown in Figs. 2 and 3 for the retracted position, namely “Pipette tip ejector 3...is axially movable...from the position shown, past the first annular pipette top stop 5”. Thus, the position shown refers to Figs. 2 and 3. In viewing

Figs. 2 and 3, it is clear that the striker portion of the ejector is positioned axially proximal of the first and second annular pipette top stops 5 and 7.

“ and positioned axially distal of the first and second annular pipette tip stops in the ejecting position”

[0009] also describes the retracted position, namely “Pipette tip ejector 3...is axially movable...from the position shown, past the first annular pipette top stop 5”.

Thus, in the ejecting position, as understood from the various relative locations of features shown in Figs 1-3, it is clear that in the ejecting position, the striker portion of the ejector is positioned axially proximal of the first and second annular pipette top stops 5 and 7.

Thus, the element alleged to fail to comply with the written description requirement is clearly described in the specification in such a way as to reasonably convey to one skilled in pipettes that the inventor had possession of the invention as claimed.

Regarding the rejection of Claims 2 and 5 under U.S.C. §103(a) and Claims 4 and 6 over Rainin et al. (US 6,967,004), independent Claims 2 and 4, from which claims 5 and 6 also respectively depend, each call for a pipette tip mounting shaft configured to alternatively engage and retain one at a time of a pipette tip of a first diameter and a pipette tip of a second diameter.

In contrast to Applicants' claims, Rainin does not disclose or suggest a mounting shaft for two different diameter pipette tips, but rather teaches *two sealing points* for a *single pipette tip*. Nowhere does Rainin disclose or suggest a configuration to engage

and retains pipette tips of two different diameters. The Examiner's position that the pointed out structure provides this feature cannot be sustained in light of Rainin specifically teaching these structures "provide for a primary [36 and 46] and a secondary seal [36' and 46'] between the shaft 32 and the tip 40" (col. 12, lines 42-44; Fig. 5). Applicants therefore respectfully assert that Rainin teaches a mounting shaft 32 for a *single* tip 40 that is provided with *two seals* when mounted on the shaft 32, rather than a single seal provided for each of two different diameter tips as asserted by the Examiner.

Regarding claim 4, the Examiner also asserts that Fig. 5 of Rainin discloses a first and second sealing zone at angles of 84 to 90 degrees with respect to the plane perpendicular to the axis of the sealing zones (which is therefore with respect to a plane perpendicular to the axis of the mounting shaft).

First, the feature in the figure provided by the Examiner in the office action labeled "first conically sealing zone" is not defined by the mounting shaft 32, but rather is a feature of "sealing region[] 46' on the inner surface of the [pipette] tip 40." (col. 12, lines 63-64) The mounting shaft 32 ends above this labeled feature at end 35. This can be also understood by considering in Rainin Fig. 5 the cross-sectional wall of the pipette tip 40 to the left and right of this alleged "sealing zone" to understand the feature is part of the pipette tip 40 and not the mounting shaft 32 as is called for by Applicants' claims. This can also be understood from Rainin Fig. 6 which shows the mounting shaft 32 with a different tip 40 that lacks this sealing zone feature.

Second, feature 33b labeled in the Examiner's figure as "a second annular pipette tip stop" is at an angle of approximately 60 degrees with respect to the plan perpendicular

to the sealing zone, rather than 84 to 90 degrees as specifically called for by Applicants' claim 4.

Also regarding claims 2 and 4, the Examiner also asserts that Fig. 5 of Rainin discloses a first and second annular pipette tip stops as called for by Applicants' claims 2 and 4. This is clearly not the case. The figure provided by the Examiner cites Rainin Fig. 5, and marks feature 34 as being a first annular pipette tip stop and feature 33a as a second annular pipette tip stop. First, the surfaces 34 and 33a in no way form a stop for the pipette tip 40. Second, the cylindrical surfaces 34 and 33a run *parallel to* the axis defining the sealing zones, *not substantially perpendicular to* as called for by Applicants' claims 2 and 4. Third, Rainin does appear to disclose a means for stopping the pipette tip, referred to as the axial penetration limiting means 39', although in Fig. 5 the leader line is apparently slightly misplaced and Fig. 4 better represents the actual location of the stop on the structure. However, in all of the embodiments disclosed by Rainin, only one penetration limiting means is disclosed as being defined by the mounting shaft. In Fig. 6 a second penetration limiting means 39 is disclosed, but it is defined by the ejector 26, NOT the mounting shaft as called for by Applicants' claims. Fourth, as can be appreciated more clearly by Figs. 6 and 7 of Rainin, the means 39' is formed by the lower end 35 of the shaft 32, thus the limiting means 39' cannot be located between two conically tapered sealing zones as is called for the first pipette tip stop by Applicants' claims 2 and 4.

Also regarding claims 2 and 4, the Examiner also asserts that Rainin discloses the striker portion of the ejector 26 (Fig. 5 of Rainin) positioned axially distal of the first and second annular pipette tip stops 33a and 35 (Examiner's marked up Fig. 5 of Rainin) in

the ejecting position; however, nowhere in the patent does Rainin disclose or suggest that the striker portion of ejector 26 travel distal of the bottom end 35 of the mounting shaft 32 as asserted by the Examiner. Indeed, there would be no need for it to because axial travel past only the feature 33b would ensure the tip 40 would be ejected from the mounting shaft 32. In contrast to the structure disclosed by Rainin, a pipette according to Applicants' claims 2 and 4 does require the striker portion of the ejector 26 to be positional axially distal of the first and second annular pipette tip stops 5 and 7 (Applicants' Figs 1 and 2), because the upper end of pipette tip 20 is stopped by one of these stops 5 and 7, therefore the ejector 3 according to claims 2 and 4 cannot contact and eject the tip 20 unless movable distal of the stops 2 and 4. Clearly this requirement is unnecessary for the arrangement disclosed by Rainin as can be appreciate by the upper end of pipette tip 40 (Fig. 5) extending well above the asserted pipette tip "stop" 34, thus not requiring that ejector 26 traverse the "stop" 34 it to contact and eject the tip 40.

Applicants submit that the application is in condition for allowance and timely examination to that end is respectfully requested. Should the Examiner have any further questions regarding any of the foregoing, the Examiner is respectfully invited to telephone the undersigned at (317) 891-1500.

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Respectfully submitted,

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